Evaluation of post-harvest preservation of “Tommy Atkins” mango coated with cashew-tree polysaccharide (POLICAJU)

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Brazil is the second greater world-wide exporter of mango and Tommy Atkins variety constitutes 90% of that volume due to its high productivity and tolerance against diseases. The market requires great care on fruit quality for export and in the course of delivery the shelf life of tropical fruits does not exceed more than 20 days. The aim of this work was to evaluate the effect of cashew-tree polysaccharide (POLICAJU) coating over storage time of Tommy Atkins mango variety for a period of 44 days. After picking, the fruits were immersed in 1.5 and 3.0% POLICAJU solutions to which 0.4% sorbitol (w/w) and 0.05% Tween 80 (w/v) were added and let dry at room temperature (27^0C). Afterwards, they were stored under refrigeration conditions (4^0C) and evaluated with regard to pH, soluble solids content and weight loss, at time intervals of 1, 7, 14, 28 and 44 days. During storage, in all treatments, a small reduction of pH occurred while soluble solids content remained essentially the same, revealing the occurrence of no statistically noticeable effect of POLICAJU coating on these two variables (Tukey test). However, the weight loss was lower by 50% and by 20% in the fruits treated with 1.5 and 3.0% POLICAJU respectively, when compared with untreated fruits. These results suggest that POLICAJU coating has a positive effect in the preservation of post-harvested mango, also favouring the harvest of the fruits at a more advanced maturation stage.

Key words: *Anarcadium occidentale* L., edible coating, mango, post-harvest treatment

Acknowledgements: CNPq/PIBIC/UFPE/ALFA-VALNATURA